

CLAIMS

1. A frame for bounding the open, upper end of a downwardly extending recess formed in a floor or the ground, the frame comprising an upstanding, peripheral wall having protruding outwardly therefrom a flange that is embeddable in a medium so as to retain the frame relative to a said recess; and the frame including secured thereto within the peripheral wall one or more seatings for at least one cover that is insertable into the frame with the peripheral wall surrounding at least part of the cover, the or each seating including a seating member having secured thereto a resiliently deformable pad at least a part of which protrudes from the seating member to provide a resiliently deformable seating surface that is engageable by a part of a said cover.
2. A manhole assembly comprising a frame for bounding the open, upper end of a downwardly extending recess formed in a floor or the ground, the frame comprising an upstanding, peripheral wall having protruding outwardly therefrom a flange that is embeddable in a medium so as to retain the frame relative to a said recess; and the frame including secured thereto within the peripheral wall one or more seatings for at least one cover that is insertable into the frame with the peripheral wall surrounding at least part of the cover; one or more covers that are insertable into and removable from the frame; and at least four resiliently deformable pads each interconnecting a said cover and a said seating when the or each cover is inserted in the frame, the resiliently deformable pads lying at the corners of a quadrilateral thereby defined on the in-use underside of the one or more covers.
3. A frame according to Claim 1 or a manhole assembly according to Claim 2 wherein the or each resiliently deformable pad is releasably securable in a seating member.

4. A frame according to Claim 1 or any preceding claim depending therefrom; or a manhole assembly according to Claim 2 or any preceding claim depending therefrom wherein the upstanding wall is rectangular  
5 when viewed in plan, the frame including a said seating in at least two corners of the thus-defined rectangle.

5. A frame or a manhole assembly according to Claim 3 including a said seating in all four corners of the rectangle.

10

6. A frame according to Claim 1 or any preceding claim depending therefrom; or a manhole assembly according to Claim 2 or any preceding claim depending therefrom wherein the upstanding wall is rectangular when viewed in plan, the frame including at least one said seating part-way  
15 along at least one side of the thus-defined rectangle.

7. A frame according to Claim 1 or any preceding claim depending therefrom; or a manhole assembly according to Claim 2 or any preceding claim depending therefrom wherein the or each seating includes a seating  
20 member having a cuboidal block of material defining an in-use upwardly facing shoulder and having formed therein a mortise that defines a slot that is open on the upwardly facing shoulder and on a further face of the cuboidal block.

25 8. A frame or a manhole assembly according to Claim 7 wherein the mortise defines a base that in use of the frame lies beneath the shoulder, the mortise tapering in width between the base and its opening on the shoulder, the resiliently deformable pad including an engaging portion of generally complementary cross section to that of the mortise, the pad being restrained  
30 against movement relative to the mortise in the in-use vertical direction by engagement of the engaging portion in the mortise.

9. A frame or a manhole assembly according to Claim 8 wherein the pad includes a region of material that is secured to the engaging portion and protrudes from the seating member via the opening in the shoulder.

5

10. A frame or a manhole assembly according to any of Claims 7 to 9 wherein the opening in the further face of the cuboidal block is of a shape and orientation that permits insertion of the pad into the slot and its removal therefrom, in a direction other than the in-use vertical direction.

10

11. A frame or a manhole assembly according to any of Claims 7 to 10 wherein the upwardly facing shoulder is in use of the frame inclined to define respective upper and lower shoulder edges.

15

12. A frame or a manhole assembly according to Claim 11 including a pair of the seating members that are spaced from one another in the in-use horizontal direction and the upwardly facing shoulders of which are mirror images of one another whereby the upper shoulder edges define the furthest spaced apart regions of the pair of seating members.

20

13. A frame according to Claim 1 or any preceding claim depending therefrom having one or more covers resting thereon.

14. A frame according to Claim 11 or a manhole assembly according to Claim 2 or any preceding claim depending therefrom wherein the frame and each cover include co-operating hinge parts formed respectively on a side of the cover and a first side of the frame whereby the or each cover is hingedly secured to the frame at the first side thereof; the or each cover substantially spanning the frame from the first side to a second side opposite the first side.

30

15. A frame or a manhole assembly according to Claim 14 wherein the second side has secured thereat a respective pair of the seatings that are engageable by the underside of each of the covers.

5 16. A frame according to Claim 14 or Claim 15 that is essentially rectangular and includes a plurality of the covers arranged side by side, all of the covers being hinged on the same side of the frame whereby the covers are openable to leave free access to the recess on all the remaining sides of the frame.

10

17. A manhole assembly according to Claim 2 and Claim 14 or Claim 15 wherein the frame is essentially rectangular and includes a plurality of the covers arranged side by side, all of the covers being hinged on the same side of the frame whereby the covers are openable to leave free access to

15 the recess on all the remaining sides of the frame.

18. A frame according to Claim 16 wherein the upstanding wall is rectangular when viewed in plan; and wherein each cover is rectangular, the major axis of each said cover lying perpendicular to the major axis of the rectangle defined by the upstanding wall; and the edges of adjacent said covers lying spaced from one another such that the covers are capable of overlying substantially the entire aperture defined by the recess.

20

19. A manhole assembly according to Claim 2 and Claim 17 wherein the upstanding wall is rectangular when viewed in plan; and wherein each cover is rectangular, the major axis of each said cover lying perpendicular to the major axis of the rectangle defined by the upstanding wall; and the edges of adjacent said covers lying spaced from one another such that the covers are capable of overlying substantially the entire aperture defined by

30 the recess.

20. A frame according to any of Claims 13 to 16 or 18 wherein one or more said covers is substantially imperforate.
21. A manhole assembly according to any of Claims 13 to 15, 17 or 19  
5 wherein one or more said covers is substantially imperforate.
22. A frame according to any of Claims 1, 3 to 16, 18 or 20 wherein one or more said covers is perforated to define a grating.
- 10 23. A manhole assembly according to any of Claims 2 to 15, 17, 19 or 21 wherein one or more said covers is perforated to define a grating.
24. A frame according to any of Claims 1, 3 to 16, 18, 20 or 22 the width of the flange of which varies from place to place about the periphery  
15 of the frame.
25. A manhole assembly according to any of Claims 2 to 15, 17, 19, 21 or 23 the width of the flange of which varies from place to place about the periphery of the frame.
- 20 26. A frame according to any of Claims 1, 3 to 16, 18, 20, 22 or 24 including protrusions or recesses formed on one or more surfaces thereof that are embeddable in a bonding medium at the open, upper end of the recess, the protrusions or recesses enhancing the bonding of the frame in  
25 the medium and stiffening the frame.
27. A manhole assembly according to any of Claims 2 to 15, 17, 19, 21, 23 or 25 wherein the frame includes protrusions or recesses formed on one or more surfaces thereof that are embeddable in a bonding medium at the  
30 open, upper end of the recess, the protrusions or recesses enhancing the bonding of the frame in the medium and stiffening the frame.

28. A frame according to Claim 26 or a manhole assembly according to Claim 27 wherein the protrusions or recesses include an array of ribs formed on an upwardly and/or downwardly facing surface of the flange.

5

29. A frame or a manhole assembly according to Claim 28 wherein the ribs of the array are elongate and are mutually parallel, and all protrude by generally the same amount from the flange.

10 30. A frame or a manhole assembly according to Claim 29 wherein the frame is generally polygonal when viewed in plan, and wherein the elongate axis of each rib is generally parallel with a diagonal of the thus-defined polygon.

15 31. A frame generally as herein described, with reference to and/or as illustrated in the accompanying drawings.

32. A manhole assembly generally as herein described, with reference to and/or as illustrated in the accompanying drawings.